

(No Model.)

T. L. HARLOW.  
BRUSH CLEANER.

No. 571,438.

Patented Nov. 17, 1896.

Fig. 1.

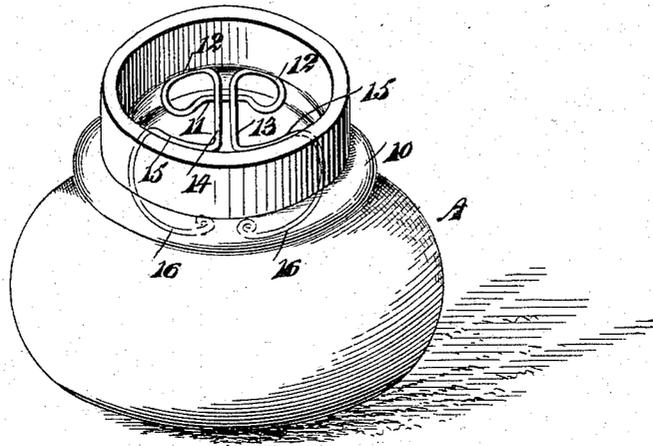


Fig. 2.

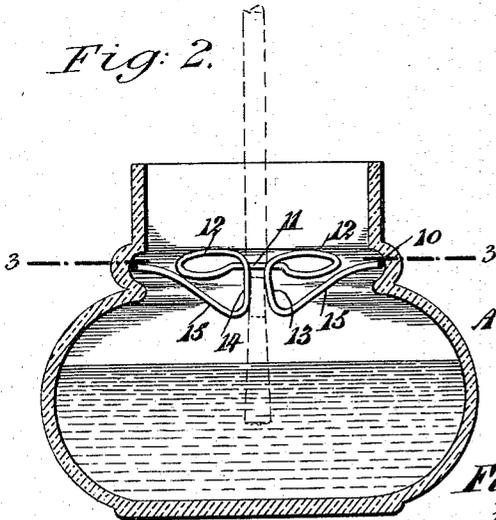


Fig. 3.

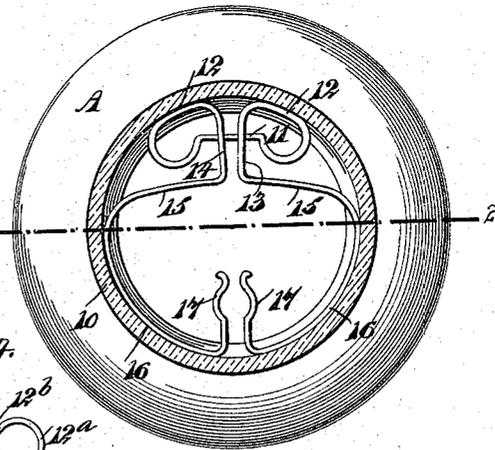
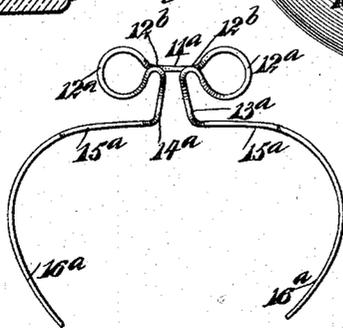


Fig. 4.



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# UNITED STATES PATENT OFFICE.

THEODORE L. HARLOW, OF GARDNER, MASSACHUSETTS.

## BRUSH-CLEANER.

SPECIFICATION forming part of Letters Patent No. 571,438, dated November 17, 1896.

Application filed February 3, 1896. Serial No. 577,882. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE L. HARLOW, of Gardner, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Brush-Cleaners, of which the following is a full, clear, and exact description.

My invention relates to brush-cleaners especially adapted to be placed as a fixture in bottles, particularly in mucilage-bottles.

The object of the invention is to provide a cleaning device for brushes of exceedingly simple, durable, and economic construction and so shaped that both sides of the brush and one of its vertical edges may be cleaned simultaneously by simply drawing the brush through a portion of the cleaner.

Another object of the invention is to so form the cleaning-sections of the cleaner that they will have a downward inclination, whereby any mucilage that may come in contact therewith will immediately drain down into the mucilage in the body of the bottle, and the said cleaning surfaces or sections of the cleaner are preferably made of a round wire, thus preventing the mucilage from clinging thereto, and the cleaning-sections are so connected with the body of the cleaner that they will be substantially parallel and will have equal tension at the front and at the back, imparting to them even flexibility throughout their length.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a mucilage-bottle, illustrating the cleaner applied thereto. Fig. 2 is a vertical section through the bottle and the cleaner, the section being taken substantially on the line 2 2 of Fig. 3. Fig. 3 is a horizontal section taken substantially on the line 3 3 of Fig. 2, and Fig. 4 is a plan view of a cleaner having its cleaning-section slightly different in shape from that shown in the other views.

The bottle A is preferably provided with an interior groove 10, located ordinarily where

the neck of the bottle joins the body; but the groove may be otherwise placed, if in practice it is found desirable. The cleaner is preferably made from a single piece of round wire, which need not be of very great diameter. This wire is bent upon itself to form a cross-bar 11 at what may be termed the "upper outer end portion" of the cleaner, and a loop 12 is formed at each end of the said cross-bar, the said loops being practically horizontal at their inner ends, while their outer end portions have ordinarily more or less of an upward inclination. After the formation of the loops 12 the wire is carried down over the cross-bar 11 between the loops 12, but independent of the cross-bar, forming two parallel sections 13 and 14, which are the principal cleaning-sections of the device.

The cleaning-sections 13 and 14 are given a decided downward and inward inclination, and the wire is carried from the lower end of each cleaning-section upward and outward in opposite directions, forming inclined bar-sections 15, (shown particularly in Fig. 2,) and from the upper ends of these bar-sections the ends of the wire are bowed outwardly, and their extremities are brought substantially together, forming a loop 16, and if in practice it is found desirable the extremities of the wire, after being bent to form the loops 16, may be carried inward, as shown in Fig. 3, in a manner to form opposing jaws 17, between which jaws the brush may be held when not in use.

The inclined bar-sections 15 of the cleaner may likewise be utilized for removing mucilage from the brush by bringing the sides or edges of the brush in contact with either of the said parts; but the principal surfaces of the device consist of the two parallel sections 13 and 14 and the cross-bar 11, since by passing the brush between the said sections 13 and 14 the mucilage will be cleaned from the sides of the brush upon drawing the brush upward, and the outer edge of the brush, by engagement with the cross-bar 11, will at the same time have the surplus mucilage removed therefrom.

The device is secured in the bottle by causing the outer ends of the loops 12 to enter a portion of the groove 10 in the bottle, the bow or loop section of the device being made

to enter the same groove at the opposite side. Owing to the device being made of a round wire a clear passage will be insured for the brush between the cleaning-surfaces 13 and 14 at all times, since there is no surface to which the mucilage can attach itself, especially as the wire may be quite fine. Owing to the peculiar shape of the cleaner the brush may be introduced therein at any angle that the bottle will admit of and be successfully manipulated, and, as heretofore stated, tension is applied to both ends of the cleaning-sections 13 and 14, the loops 12 imparting tension to the upper ends and the inclined bar-sections 15 performing the same function at the lower ends of the said sections. Therefore the said cleaning-sections will have even flexibility throughout their length.

The bow portions 16 of the device are practically on a level with the upper portions of the loops, and the said upper portions of the loops and the said bow portions of the device constitute the means for fastening the device in the bottle. I desire it to be understood that the wire may be differently shaped, if in practice it is found desirable, except the cleaning-sections of the device, which are preferably retained in the shape illustrated.

In Fig. 4 I have illustrated a form of the device which is preferred to the construction shown in Figs. 1 and 2. In this improved form the wire is bent to form a cross-bar 11<sup>a</sup> and a loop 12<sup>a</sup> at each end of the bar. These loops are nearly circular in form, and what may be termed their "under" ends are carried up to and independently over the cross-bar, at which point the wire is bent somewhat sharply upon itself, forming return-sections 12<sup>b</sup>, and then the wire is carried downward and inward from the bar, producing parallel cleaning-sections 13<sup>a</sup> and 14<sup>a</sup>, corresponding to the sections 13 and 14 in the other views. The wire is carried from the cleaning-sections slightly upward and outward in opposite directions, forming bar-sections 15<sup>a</sup>, and finally each end of the wire is bowed, as shown at 16<sup>a</sup>, to be fitted in the groove of the bottle A. By this construction a considerable elasticity is obtained at the back of the device.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. A brush-cleaner, comprising substantially parallel cleaning-sections having a downward and inward inclination, a cross-bar located back of the cleaning-sections in the path of a brush drawn between the said sections, and loop-sections adapted to engage the inner surface of a bottle and hold the cleaner therein, substantially as described.

2. A brush-cleaner, comprising two loops connected by a cross-bar, downwardly-extending and approximately parallel cleaning-sections at one side of the said cross-bar, and a bowed section in approximately the same horizontal plane as the loops, substantially as described.

3. A brush-cleaner constructed of a single piece of wire and comprising two loops forming the upper end portion thereof, connected by a cross-bar, the wire being carried downward and inward from each loop over the cross-bar in substantially parallel lines, forming cleaning-sections, the ends of the wire being carried upward from the lower ends of the cleaning-sections for a predetermined distance, being then bowed, the bow portion being substantially on a level with the upper portion of the loops, as and for the purpose specified.

4. A brush-cleaner constructed of a single piece of wire and comprising two loops forming the upper end portion thereof and connected by a cross-bar, the wire being carried downward and inward from each loop over the cross-bar in substantially parallel lines, forming cleaning-sections, the ends of the wire being carried upward from the lower ends of the cleaning-sections for a predetermined distance, being then bowed, the bow portion being substantially on a level with the upper portion of the loops, as and for the purpose described, the extremities of the wire being made to terminate in a holder for the brush, as set forth.

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Witnesses:

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